

REMARKS

In the Office Action mailed February 12, 2004 the Examiner noted that claims 1-25 were pending, that claims 2, 8-19, 21-23 and 25 have been withdrawn from consideration, and rejected claims 1, 3-7, 20 and 24. No claims have been amended and new claims 26-28 have been added, thus, in view of the forgoing claims 1, 3-7, 20, 24 and 26-28 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections are traversed below.

On page 2 of the Office Action, the Examiner rejected claims 1, 3, 6, 20 and 24 under 35 U.S.C. § 102 as anticipated by Naimpally. Page 3 of the Office Action rejects claims 4, 5 and 7 under 35 U.S.C. § 103 over Naimpally. The present invention provides several distinctions over Naimpally as discussed below.

Naimpally is directed to a system designed to provide a video image with what are called "trick-play" features. To provide this capability Naimpally provides two encoders 314 and 325 (see figure 3) producing two data streams resolution data stream and the other encoder encodes a segmented data stream. These two data streams are interleaved to provide the trick play mode. In contrast the present invention, as depicted in application figure 5, shows one encoding unit that produces one data stream. As a result, one compressed data set is produced for each frame and data transfer size as compared to Naimpally is improved while the tolerance for an entrained error is maintained or improved. The coder of the present invention loosely corresponds to the high resolution (HDTV) encoder 324 of Naimpally, but the configuration of the coder of the present invention is much different, as discussed in more detail below. This number of coders and data stream distinction over Naimpally is emphasized in the claims. Naimpally does not teach or suggest this.

The present invention provides intra-frame coding for each frame with respect to several consecutive frames starting with the first or front frame. Naimpally does not teach or suggest this.

The present invention performs an information amount reduction of the data set obtained by the intra-frame coding of the consecutive frames to balance the amount of data that would be coded using inter-frame coding since data sets intra-frame codes are typically larger in size than that coded using inter-frame coding. As noted above, Naimpally actually increases the amount of data by encoding two data streams and combining them. This teaches away from the data reduction of the present invention.

As noted above, the present invention intra-frame codes several frames. Once these frames are coded, for the subsequent frames the present invention adaptively performs intra-frame or inter-frame coding. That is, the adaptive coding is between intra and inter frame coding. The Examiner points to Naimpally col. 5, lines 8-14 for this feature. This portion of Naimpally particularly states:

The luminance and chrominance samples produced by the filter and decimate circuitry 312 are applied to an encoder 314 which compresses the samples representing the low resolution video image using only intra-frame coding techniques. In this exemplary embodiment of the invention these techniques include discrete cosine transformation, adaptive quantization, run-length coding and variable length coding.

(See Naimpally, col. 5, lines 8-14)

As can be seen, this portion of Naimpally says nothing about adaptively or selectively switching between intra-frame and inter-frame encoding.

The Examiner asserts on pages 2 and 3 of the Action that the fact that Naimpally performs compressing "using only inter-frame coding" meets the limitation of performing intra-frame or inter-frame coding. However, Naimpally does not meet (teach or suggest) the limitation of "adaptively" performing intra-frame or inter-frame encoding. This is because, as the Examiner acknowledges, Naimpally only uses one coding and, thus, cannot adaptively code between two codings. Parts of a claim cannot be read piecemeal ignoring some limitations while considering others but the claim must be read as a whole. When read as a whole, Naimpally does not teach or suggest the claimed invention.

The present invention provides the benefit of error disturbance diminishment in a short time and the benefit that the total amount of data does not increase even when several frames in the front are coded fixedly using intra-frame coding. Naimpally does not provide such benefits.

It is submitted that the invention of independent claims distinguishes over the prior art and withdrawal of the rejection is requested.

New claims 26-28 variously emphasize the single coder being used in the present invention to code consecutive frames including the first frame with a data reduction of the first coded frame data and that there is an adaptive switching between inter-frame coding and intra-frame coding for subsequent frames. Nothing in the prior art teaches or suggests such. It is submitted that these new claims distinguish over the prior art.

It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

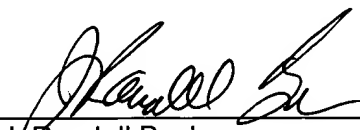
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If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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